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National Marine Fisheries Service
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Subject: DRAFT BDCP and BDCP EIR/EIS comments for Staten Island and Reclamation District 38

Upon review of the Draft BDCP and the Draft BDCP EIR/EIS, we have determined that the analysis of environmental impacts of the Bay Delta Conservation Plan is incomplete and inadequate.

Overview

In order to fully realize the impacts of the proposed BDCP, the entire project must be presented. As a Habitat Conservation Plan and Natural Community Conservation Plan, the BDCP fails to identify specific locations where all of the proposed Conservation Measures (CMs) are expected to take place. CM 1, Water Facilities and Operation, is the only measure that has specific locations, thus potential impacts can be studied, evaluated, and ultimately mitigated.

The CMs that propose habitat restoration, CM 2-11, and those that have physical components to guard against other stressors, CM 16 to 18, and 21 do not have specified locations. Multiple areas in the BDCP EIR/EIS state that locations for these activities have not been selected and thus the effects are unknown. These later CMs will likely impact a considerable amount of productive land within the Delta that is not currently dedicated and managed as habitat. Such a change in land use will have significant impacts on the Delta economy, the legacy towns and the *Delta as Place*. Consequently, the potential success of these Conservation Measures as part of a HCP/NCCP cannot be evaluated by State and Federal permitting agencies without any specific location information, nor can any adverse impacts be assessed.

The EIR/EIS only provides a superficial and general overview of impacts of the Conservation Measures beyond CM 1. This is due to the lack of specific conservation measure location information. The Final BDCP EIR/EIS should include this level of detail and impact analysis in order to identify any mitigation strategies to reduce impacts to less than significant levels.

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There is an overall lack of consideration of adverse impacts on local LMA's and their ability to maintain and manage the reclamation works and levee systems within their jurisdiction. When searching in the document for impacts on human safety, which would occur, when levees are compromised as a result of BDCP implementation, Chapter 25: Public Health redirects readers to Chapter 6: Surface Water. Chapter 6 provides very little on adverse impacts to the levee systems and potential flooding concerns. The document is incomplete without and adequate analysis of all BDCP impacts on Delta island drainage and levee systems. This deficiency should be addressed in any Final BDCP EIR/EIS.

Based on the information provided in the Draft BDCP (Plan) and Draft BDCP EIR/EIS (Report), the following considerations must be evaluated with regards to impacts on Staten Island and Reclamation District 38 (District). These comments are based on the impacts of Alternative 4, described as the preferred alternative. The tunnel alignment in Alternative 4 also has the greatest impact on Staten Island and Reclamation District 38 when compared to all of the other alternatives.

Draft BDCP EIR/EIS

Chapter 6: Surface Water

According to Figures 6-14 and 6-15, flow downstream of the intakes on the Sacramento River will be reduced by approximately 5000 cubic feet per second (cfs) or 25% on average. This will in turn have impacts on downstream channels. The North and South Fork of the Mokelumne River are partially fed by this river through the Delta Cross Channel. An analysis needs to be done to determine the river stages of channels connected to the Sacramento River when the project is operational. According to BDCP Effects Analysis, Appendix 5C- Delta Habitat, a reduction in 6000 cfs is expected to drop the river level 3 feet (5C.5.4-6). If levels in the channels drop too low, the ability to siphon or pump water would be adversely affected. This could involve some diversions on Staten Island that are used to irrigate crops and accommodate the seasonal flooding for managed water fowl habitat.

On Figure M3-4 Sheet 7, the muck spoil site obliterates the main drainage canal on the southern end of the island. This will have a significant impact on the entire drainage network feeding into this principal system component. There is some discussion in the documents regarding relocating drainage systems prior to construction, however this main artery in the District's reclamation works and cannot easily be relocated without significantly impacting farming operations and even compromising levee safety on a major portion of the island.

Chapter 7: Ground Water

There are three (3) tunnel shafts proposed to be located on Staten Island. It is estimated that the construction of these shafts will require dewatering a 2600 foot radius to a depth of 300 feet (p. 7-46). On Staten Island a total of 1,195 acres lie within the projected dewatering influence area. It is likely dewatering will cause subsidence within the 2600 foot well area of influence and most likely beyond. This is not mentioned in the Report. Subsidence and associated impacts as a result of dewatering activities are potentially significant and must be addressed. For example, subsidence from dewatering can weaken the levees by creating higher hydrostatic pressures or

may even cause the levees to rotate. The areas of special concern for the District are the northern and southern under crossings of the levee by the tunnel shafts. The dewatering area of influence includes the levee. The impact on levee integrity and the potential increased flood risk from adjacent dewatering activities is not evaluated, but would be a significant adverse impact that would require mitigation.

Chapter 7 also discusses the possibility of seepage occurring on an island if an adjacent island is flooded for habitat purposes. This will cause an increased flood risk on the subject island if seepage is left unmitigated and begins to undermine the levees. This consequence of that impact is not discussed in the documents. Rather, it is recognized as a potentially serious adverse impact that may not be mitigated because of high costs associated with resolving seepage issues, according to the report (p. 7-51). The costs to remediate potential adverse seepage impacts would then be transferred to the District. This could place an undue economic burden on the District and seriously hamper its ability to adequately maintain the levee system the level of protection warranted by the resources protected.

There is no discussion of the affects dewatering will have on irrigating crops, such as increased drawdown or the ability to irrigate crops in those areas. Groundwater effects on agricultural drainage and irrigation is briefly addressed in Chapter 14, which continues to emphasize that the geographic incidence and potential severity of these effects are unknown (p.14-128). More research is obviously needed regarding dewatering issues to properly assess impacts in any EIR/EIS for the Plan. Additionally, there are no specific mitigation measures in the EIR/EIS to resolve any unanticipated impacts to drainage after construction activities have commenced.

In the winter, much of the land area is flooded to provide habitat for the threatened Greater Sandhill Crane and other waterfowl. Dewatering could adversely affect this time honored practice and as such has not been considered in the potential impacts of dewatering. The impacts of the dewatering wells, such as noise that would disrupt terrestrial species, are not discussed, nor are their specific locations determined. There is no discussion in the Plan as to whether or not, or when, the dewatering wells will be removed once construction is complete or if the land will be returned to its pre-construction state.

Chapter 12: Terrestrial Species

The preferred alternative, Alternative 4, will permanently remove approximately 1,500 acres from beneficial use. Most of this land is used for agriculture and is flooded in the winter to support threatened Greater Sandhill crane, shorebirds, and other waterfowl. Sandhill cranes are one species that almost exclusively use Staten Island over other islands in the Delta for nesting and roosting areas. Staten Island supports an estimated 15% of the regions threatened Greater Sandhill Crane population (Ivey 13). This chapter does discuss creating about 700 to 900 acres of habitat for Greater Sandhill Crane, which doesn't offset the acres lost on Staten alone. The chapter concludes that the net effect is a substantial decrease in the amount of managed wetland (p. 12-2052). The BDCP suggests that more habitat will be created that will also support Sandhill crane but doesn't say if it will be exclusively managed for Sandhill crane. There is no discussion of what will happen if the Sandhill cranes do not choose to use the new areas for roosting or nesting. Given how they have exclusively used Staten for quite some time, expecting this species to thrive in other locations is uncertain, so the project impact is most likely adverse.

The land that will be taken out of production will be used as reused tunnel material (RTM) areas. Conservation Measure 1, Alternative 4 indicates that the ponds will be created to dewater the tunnel muck material. There is no discussion of the effects the ponds could have if used by sandhill cranes or other water birds that use Staten Island for nesting, roosting, and foraging.

Chapter 14: Agricultural Resources

Based on information provided for the preferred Alternative 4, at least 1,500 acres of Important Farmland will be permanently removed and used as RTM sites. It appears though, that once construction is complete this material will be moved off site and used for other purposes. This should allow farming practices to continue on previous spoil sites after construction and removal of RTM. However, page 14-109 indicates that the operations in the RTM areas would preclude future agricultural use. The statement implies a significant adverse impact that is not addressed. There is also no proposed schedule for the RTM removal from the spoil sites.

The effects of the loss of a minimum 1,500 acres on Staten Island will have an economic impact of at least $1.5 million to $2.3 million annually depending on what type of crops are planted. This estimation uses the gross return of $1,020 per acre for corn and $1,540 per acre for alfalfa, crops typically planted on Staten Island (URS 2008, UCD 2011). This is a significant amount of lost production that would require mitigation. The proposed mitigation measure to offset lost agriculture, AG-1, creates an Agriculture Land Stewardship Program (ALSP) that suggests providing landowners with subsidies to operate the land in a way that may improve habitat or aide in operations. It is not specified in Chapter 8 of the BDCP what funding sources will be used to compensate landowners for lost productivity or to support an ALSP. It is expected that owners will not be fully compensated for the loss of agricultural operations. This will not only have significant impacts on the landowner and employees, it will also extend to the Delta legacy towns that depend on agricultural operations for their continued viability.

The District obtains funding for drainage system management, levee maintenance activities and rehabilitation projects from assessments against the land owner. Any permanent loss in agricultural production and revenues would ultimately impact the District's financial resources and ability to carry out its responsibilities for flood protection and drainage. Components of CM 1 will benefit from the protection of the levees and thus should be subject to assessments. There is no discussion in the BDCP of this issue or a mitigation strategy in this chapter or in BCDP Chapter 8.

Several gas lines owned by Lodi Gas and PG&E cross beneath Staten Island. These pipelines are required to have safety coverage so that agriculture operations can take place above. Subsidence from dewatering activities could reduce the coverage of these pipes, creating a potentially hazardous situation for the farming operations. The gas lines would have to be lowered if minimum coverage standards are not met. This possible scenario has not been considered and could be an adverse project impact that would require immediate mitigation to protect public health and safety.

Chapter 19: Transportation

According to Conservation Measure 1, Alternative 4 has project components along North Staten Island Road. The road runs immediately parallel to the tunnel alignment and is adjacent to two tunnel shafts, spoil areas, and a Safe Haven area. There is no analysis of the effects of the construction activity on this road in Table 19-26, either physically or function ally. Analysis shows that SJ 01 has deficient baseline conditions and construction activity will result in even worse. This is likely the case for North Staten Island Road. The northern most tunnel shaft location appears to be adjacent to the levee. It is not discussed whether or not levee access roads will be used by construction equipment to construct certain elements of the BDCP. Increased loads from large construction equipment frequenting levee patrol and access roads could hinder District access and adversely impact the levee structure, resulting in maintenance, flood response, and increased flood risk issues for the District and island, creating significant adverse impacts that have not been identified. Increase traffic on the main north-south access road will further exacerbate the access and operational problems for the District, and severely disrupt island farming operations, with significant adverse economic impacts.

Page 19-69 mentions the affected roadways will be brought back to preconstruction condition or better after construction. The report is silent on the adverse impacts to Staten Ranch and District operations during the lengthy construction period. This chapter also says "the BDCP proponents are not solely responsible for the timing, nature, or complete funding of required improvements" (p. 19-191). These two statements conflict and negate the assurances that one of the impacts might be mitigated, after-the-fact, or that unidentified on-going impacts will be addressed. This is just another example of the inadequacies of the BDCP and the EIR/EIS analysis.

On Figure M3-4 Sheet 7, the muck spoil site for Alternative 4 will cover the southern end of the main Staten Island Road north-south road. This will block the District's direct access to the levees on the southern end of the island. As previously mentioned, blocking access will compromise the District's ability to monitor and maintain the levees in that area. The District would also be unable to access this area quickly if a potential flood emergency occurs in this part of the island. The levees in the southern end of Staten Island are the most vulnerable levees and are exposed to greater hydrostatic pressures than the rest of the levee system. Thus the potential impacts to the unfettered use of this main island thoroughfare are significant and adverse. These impacts to Staten Island operations are not addressed in this chapter.

Draft BDCP

Conservation Measure 1: Water Facilities and Operation

According to Figure M3-4 Sheet 7 there is a major spoil re-handling site located directly adjacent to the south east levee on Staten Island. This potential placement of significant amounts of RTM material could adversley impact the integrity of the adjacent levee, stretching over 4 miles along the Mokelumne River Sough Fork. The Plan does not provide any detail about the proposed containment berms and whether they will be built adjacent to the levee or if the levee themselves will be used to contain the RTM. The weight from the RTM could consolidate the soils below and induce significant subsidence that would likely jeopardize levee integrity and increase flooding risk exposure. So will the activity associated with the barge unloading and, likely, loading operation projected for the levee area east of the main island road There is no discussion regarding the need of construction vehicles to access the levee patrol road to access

barges. There is also no description of what the loading facility will look like or how it will be constructed and its relationship to the levee structure. This is just another example of a seriously deficient impacts analysis.

Conservation Measure 6: Channel Margin Habitat

Channel Margin Habitat is planned along the North and South Forks of the Mokelumne Rivers (p. 3.4-158). These channels border Staten Island. While channel margin habitat locations are not specified in the Plan, some impacts of performing this conservation measure should be addressed. This deficiency is overlooked in the EIR/EIS analysis. There is no discussion on the limitations this could have on District levee maintenance activities, or even if it is physically and economically feasible. Page 3.4-158 just says the office will coordinate these activities with flood management agencies. It is not clear if the flood management agencies will also be required to provide financial/personnel resources for this work. There is no discussion on who is expected to manage the channel margin habitat areas after work is complete. Many other impacts of this CM can only be determined after the locations are selected and a design is engineered. If set-back levees are the contemplated solution, there could be a whole host of adverse impacts to farming operations and drainage that would require mitigation, to say nothing of the economic consequences for the Ranch and the District.

Thank you for your consideration. Please contact me with any questions or if you require any further information.

Respectfully,

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References

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